WITK

# The Spark Gap

**MARCH 1984**

Book IX Vol III

Official Journal of the Wellesley Amateur Radio Society

# President's Message

We are now going through the slow rt of the year as far as our activ-ity calendar goes. We have had some really good programs at the meetings, though, and the weekly nets have helped everyone keep in touch. Spring time brings a great increase in activities and it is time to start thinking about some of these.

Next month we have our major fund raiser of the year, our annual auction. We need plenty of people to help the day of the auction (April 14) to arrange tables and chairs, move auction items, sell food, give out raffle tickets and all the other little things that have to be done. Please set aside the day now to help out. Whether or not you can help, start now to talk up the auction on the air as we can always use more publicity.

Also coming up in April is the BAA Marathon, which has the largest manpower requirement of any event we take art in. Dick Paret, WA1ZLQ, is organizing the Amateur Radio participation once again this year and if you can help out, please contact him by mail. His address is P.O. Box 171, Green Harbor, Mass. 02041. When you write, include your name, address, callsign, what equipment you have for 2 meters, 220 and 440 MHz, day and night phone numbers, shoe size and coat size. If you have any preference on location indicate that too. Dick can also be reached at 837-6423 and he says he will need about 55 operators this year!

Field Day is still several months away, but planning is needed now. We've held Field Day at the Wellesley Town Hall the past several years and despite relatively low participation by the club members we've had some success. I propose that we hold Field Day at the Town Hall once again. If you have any other ideas, please say so as soon as possible.

If anyone has any other ideas for club activities, please speak up. There are an awful lot of you who keep quiet all the time. If you're not happy with what the club is doing and you don't speak up you have no one to blame but yourself.

## ANNOUNCEMENT

How's your deviation? Is your 25 watt rig really putting out 25 watts? Well, on March 15 you will have a chance to find out. Our meeting program that evening will be a VHF rig clinic. Allan Bacon, K1BA, Mike Kiron, N1CGF, and Erik Thoresen, K1OGF, will be providing the equipment and expertise to give your rig a thorough going over. There will even be a spectrum analyzer available to test the "cleanness" of your signal. So bring your rig along March 15 when the meeting will start at 7:30 p.m. as usual.

**MEETINGS THIS MONTH:**

March 1, 1984, at 7:30 p.m.
March 15, 1984, at 7:30 p.m.
211 Washington St., Wellesley

## "New Tickets"

Congratulations go to Tim Kinahan, N1CPE, who passed his Advanced class on February 8 in Boston. Tom was going to take the Extra exam too but unfortunately got signed up for the wrong test time. Anyway, way to go Tom, and you'll get that extra in May with the rest of the members of the Extra class seminar.

## FROM THE MAILBAG

In the club station room we now have a Bulletin Board that can be used by club members for the SALE, or WANTS or any message of general interest.

If any member would like to put W1TKZ on the air for passing out some contest points, the following events are coming up:

March 3-4 ARRL DX (Phone)
March 24-25 CQ WPX (Phone)

The club will not attempt to score big but it would be nice to have W1TKZ end up in a few log books. Anyone wishing to operate can contact Bob Drapeau, KT1K, at 883-1132 if they need access to the club room. As usual we would like the members to operate any time. The 2 meter rig is back so members are welcome to operate 80-10 and 2.

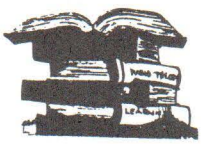
Also, is it getting too expensive to QSL all your U.S. QSOs? Now you can send all your outgoing U.S. cards to a stateside bureau. KM7Z is a free voluntary service that runs on donations for U.S. Amateur QSLing. No addresses or postage necessary and if you don't have a SASE on file to receive any cards for your call, you should!

United States QSL Service (USQS)
KM7Z
P.O. Box 814
Mulino, OR 97042

I have placed an envelope on the Bulletin Board if any club member wishes to QSL any W1TKZ contacts. I will mail them from time to time.

73, Bob KT[illegible]

## education corner



The Novice class continues to go well. Teachers Art Thompson, KA1ENP, and Ken McNair, KA1ACX, have 26 people on the roster with the majority in attendance each week. In addition to the regular instructors, several other club members have dropped by to help with the class and with demonstrations for the class.

## Hamnews

IARU has welcomed a 119th member-society; Belize Amateur Radio Club has been admitted to membership with 70 affirmative votes and no "nay" cast on the proposal.

ARRL Letter, February 2, 19[illegible]

## OFFICERS

PRESIDENT:
Nels Anderson, K1UR, 872-5259
VICE PRESIDENT:
David Curry, K1TK, 237-2450
RECORDING SECRETARY:
David Kent, N2AWG, 647-9334
CORRESPONDING SECRETARY:
Allan Bacon, K1BA, 749-4382
TREASURER:
C.J. McDonald, WB1BUM, 332-6091
FUND RAISING:
Kevin Kelly, WA1YHV, 242-0341
OPERATING ACTIVITIES:
Erik Thoresen, K1OGF, 655-7048
EDUCATION CHAIRMAN:
Art Thompson, KA1ENP, 235-5509
STATION MANAGER:
Bob Drapeau, KT1K, 883-1132
REPEATER COMMITTEE:
Tom Kinahan, N1CPE, 899-5924

# The Spark Gap

Official Journal of the Wellesley Amateur Radio Society

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THE "SPARK GAP" IS A MONTHLY PUBLICATION OF THE WELLESLEY AMATEUR RADIO SOCIETY. ITS PRIMARY PURPOSE IS TO KEEP ITS MEMBERS ABREAST OF CURRENT HAPPENINGS, FCC RULES AND REGULATIONS CHANGES, AND TO LIST EQUIPMENT OFFERED FOR SALE OR TRADE BY MEMBERS. MEMBERS ARE ENCOURAGED TO CONTRIBUTE TO THE "SPARK GAP" AND MAY SEND THEIR ARTICLES TO THE EDITOR. ITEMS PRINTED IN THE "SPARK GAP" MAY BE REPRINTED BY OTHER AMATEUR RADIO PUBLICATIONS PROVIDED THE AUTHOR AND THE "SPARK GAP" ARE GIVEN CREDIT.

THE WELLESLEY AMATEUR RADIO SOCIETY IS A NON-PROFIT ORGANIZATION DEDICATED TO THE PROMOTION OF AMATEUR RADIO THROUGH INSTRUCTION, FELLOWSHIP, DEMONSTRATION, AND ENCOURAGEMENT OF PARTICIPATION. ANNUAL MEMBERSHIP IN THE SOCIETY IS $8.00. THE CLUB YEAR RUNS SEPTEMBER 1 TO AUGUST 31. AMATEUR NOVICE AND GENERAL CLASSES ARE CONDUCTED REGULARLY AT NO COST. TO ENROLL IN A CLASS, OR GAIN INFORMATION ABOUT THE SOCIETY IN GENERAL, WRITE:

THE WELLESLEY AMATEUR RADIO SOCIETY
211 WASHINGTON STREET
WELLESLEY HILLS, MASS. 02181


# MINUTES

Meeting of February 16, 1984:

The meeting was opened at 7:50 p.m. by President Nels Anderson, K1UR, with about twenty present.

The treasurer's report was given.

The auction was discussed briefly and fliers were passed out.

Dick Paret, WA1ZLQ, told about some upcoming public service activities, including the Charles River Run, the Wellesley Teachers Bike-A-Thon, and the Boston Marathon.

A site for Field Day was discussed. Returning to the Town Hall was considered as well as operating in the field next to the club, but no decision was made yet.

Mort Cohan, KA1IU, announced that we may be asked to help with an Amateur Radio demonstration at a science teachers convention in May. He had no further details at this time.

C.J. McDonald, WB1BUM, requested that people think about who they want in the upcoming election and to send nominations to him.

Arthur Thompson, KA1ENP, has informed us that he will be resigning as education chairman at the end of the year and would like to help break in a new person. A request for volunteers was made, but there were no takers.

The club is going to start having informal breakfast get togethers. They will be held the fourth Sunday of the month at Friendly's on Route 135 in Natick center. The time will be around 9:00 a.m. and the first meeting is scheduled for February 26. All are welcome to drop in.

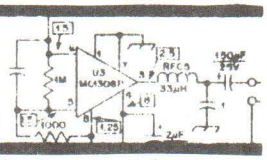
A lengthy discussion of the state of the repeater was held after Tom Kinahan, N1CPE, told about the problems we have been having lately. It was decided that something needs to be done, and Tom was to write up a proposal to purchase some new equipment and solicit funds to do so.

The business meeting was closed at 8:43 p.m. After a short break, a video tape copy of a film made by the Framingham Radio Club in 1935 was viewed. The film showed the club officers as well as a large selection of members stations. Quite a difference from the station of 1984!

# Elections

It is time to start thinking about who you would like to see running the club next year. Nomination of officers will be held this month at the March 15 meeting. Election Committee Chairman C.J. McDonald, WB1BUM, will take nominations by mail any time up to that meeting as well as during the meeting. If you would like to nominate anyone, including yourself, mail your nomination to C.J. McDonald, 48 Hale Street, Newton, Mass. 02164.

# Tek Talk



Report on February 2nd meeting

Thanks to Dave Meldrum, KA1MI, and two other members of the New England Packet Radio Association, we had a chance to learn about the new communications frontier available to packet radio operators. If you missed their talk and demonstration on February 2, here is a brief summary of what went on.

Packet radio is a means of error free communications using computers or computer terminals. Most home computers can be used for packet radio with the addition of a terminal emulator program and a packet radio board known as a terminal node controller or TNC. The TNC is the heart of packet communications. Instead of sending characters one at a time as you would using RTTY, the TNC stores up a group of characters and does not normally send them until you hit a carriage return. Some other information is added to the characters that you typed and the whole group is sent in a short burst; this burst of characters is known as a packet.

The information in the packet that is added to what you type gives packet radio some interesting abilities. Several stations can use packet radio on the same frequency at the same time because packets are so short that most of the time two stations talking to each other are off the air. The packets contain the callsigns of both the sending and receiving stations so that the TNC ignores any packets it hears that do not have the right callsign in them. The packet also contains a check character which is calculated from the data in the packet. If the receiving station does not generate the same check character as it received it can request that the packet be retransmitted, thus allowing for error free communications.

The most interesting part of the talk was the plans the local group has for expanding their network of stations. By just leaving a packet station turned on, even if you are r using it, other people can use it as a repeater. This allows packet stati to communicate even if they can not hear each others signal directly. This also allows for the use of "gateways" which are packet stations that allow connections not otherwise possible. Some gateways proposed for the local area are an HF gateway that would connect to a group in Germany, an OSCAR 10 gateway (packet is already in use on the satellite but not every packet radio station has satellite equipment), and a station on Mt. Greylock in western Massachusetts which would allow linking into several other states where there are large groups of packet radio stations.

Clearly packet radio allows for some interesting capabilities for an Amateur station. For many people it would not take much to get on since a normal two meter rig is used and many hams already have a home computer. In addition you really don't have to know much about how packet radio works use it. It will certainly be interesting to see how this mode progresses. Thanks to the guys from NEPRA for their very informative introduction to packet radio.

# Hamnews

Rick Cooper and his "Communications Attorney Service" have reappeared, but probably not because of the resurgence of interest in Class D CB radio. It is believed that his hatred of the ARRL, the FCC and hams in general is the reason that he is chancing arrest by exposing himself in the public eye. Before leaving the U.S., Cooper said he would return and keep his promise to turn Amateur, marine and military spectrum over to the illegal 10 1/2 meter CB crowd. The California Attorney General estimates that Cooper left for Mexico with between 90 and 100 million dollars.

Westlink Report, January 27, 1[illegible]4

# CHUCKLE KORNER

## HOW TO REPAIR A TWO METER RIG

by Lew Nyman, K1AZE
via FramingHAM

Sooner or later, every ham is plagued with a two meter transceiver that won't work. The problem may be a loose connection, a defective part, misuse, or just plain old age. If you possess some basic technical skills you may want to try the following techniques. These methods aren't guaranteed to bring results, but they will give you something to do before resorting to sending the rig back to the factory.

Step 1: Approach the radio with a confident manner. This will give the radio a mistaken impression that you know something. It will also impress anyone who might be looking, and if it should suddenly start working you will be credited with the repair. If this fails, proceed to step 2.

Step 2: Wave the service manual at the radio. This will make it assume you understand its circuitry and that you know how to read a schematic diagram. If this fails, proceed to step 3.

Step 3: In a forceful manner recite Ohm's Law. Before you take this step, be sure you know Ohm's Law. This will prove to the radio that you indeed know something. If the radio still isn't impressed, proceed to step 4.

Step 4: Jar the rig slightly. This may require anything from a three to a six pound hammer. However, you must be careful not to damage the hammer. If this step still does not bring results proceed to the next step.

Step 5: Wave a large screwdriver in a menacing manner. This will show the radio that you know the deadly short circuit technique.

Step 6: If nothing else works, try making some ohmmeter readings, assuming you own an ohmmeter. This should confuse the radio and increase your advantage.

Step 7: If the radio has no sentimental value and you're sick and tired of fooling with it, try bringing it to the next ham radio flea market in your area. People will always buy junk as well as good stuff.

Step 8: If you want to make a last ditch effort to save it, and you do not wish to display further ignorance, bring it to any one of your ham radio buddies since they are more knowledgeable than you and claim to be experts. If this step fails, proceed to step 9.

Step 9: Return the radio to the factory. You should have done this in the first place.

# Hamnews

"Internal administrative delays" within the FCC are still holding up final designation of the first batch of Volunteer Examination Coordinators. Once these delays are overcome, it is expected that 3 major Amateur Radio organizations will be named to kick off the program of volunteer testing for all classes of licenses.

The three to be named are the Anchorage ARC of Alaska for the KL7 call districts, the Metroplex ARC of New York for the 2nd district and a MARS group headquartered in Puerto Rico to oversee the process in the KP/Caribbean region.

As far as ARRL involvement in the program goes, a high ranking source at the FCC says that the stumbling block between the League and the Commission remains ARRL insistence that it be named the "National Volunteer Examination Coordinator."

As previously reported, the FCC says that no one will be named to such a position due to the enabling legislation which allowed a VEC program to exist. The League denies that they are making such a demand and say that negotiations with the FCC are continuing.

Westlink Report, February 10, 1984

# ELECTRONICS EXCHANGE

FOR SALE: KDK 2016A two meter mobile FM rig. The rig has 4 memory channels and scanning. Also, Drake twins, separate HF transmitter and receiver. Contact Dick Weissel, WA1HRV, at 655-2366.

FOR SALE: Drake TR4 Transceiver with AC power supply, speaker, and spare tubes including six finals. $350. Contact Irving Geller, KO1N, 1450 Worcester Road, Framingham, Mass. 01701. Phone 875-3653.

FOR SALE: Drake TR4 Transceiver with AC power supply, speaker, and spare finals. $350. Contact Bob Drukman, WA1UIY, 969-1574.

This column is available for any club member who has something to sell or is looking to buy something. To place your ad, contact the editor by the 20th of the preceeding month.

# Auctions / Flea Markets

March 17: The Interstate Repeater Society will hold a flea market at the Hudson Lions Club, Hudson, N.H. Admission is $1.00. Talk-in on 146.25/85 and 146.52. Food available.

March 18: Second annual Insurance City Club flea market will be held at the Farmington Youth Center, 66 School Street, Unionville Conn. Talk in on 146.28/88 and 147.75/15.

April 1: The Framingham ARA will hold its annual spring flea market at the Framingham Civic League Hall on Concord Street (Route 126) in Downtown Framingham. Doors open at 9:00 a.m. for sellers and 10:00 a.m. for buyers. Admission is $2.00, tables $8.00. Contact the Framingham ARA, P.O. Box 3005, Framingham, Mass. 01701. Talk-in on 147.75/15 and 146.52.

April 7: The Great Bay Radio Association will hold its annual hamfest-flea market at the Somersworth Armory, Somersworth, N.H. from 9:00 a.m. to 3:00 p.m. Antique radios and computers will be on display. Admission $1.00. Talk-in on 146.52 and 147.00

April 14: Our own Wellesley [illegible] auction. Talk it up!

May 5: Deerfield Hosstraders Swapfest. This is the big one!

May 20: Montachusett ARA Flea Market, at Wallace Civic Center, 1000 John Fitch Highway, Fitchburg, Mass. Doors open at 8:00 a.m. for sellers, 9:00 a.m. for buyers. Tables are $8.00. Talk-in on 144.85/145.45 and 146.52.

# NEW CLUB MEMBERS

This month we would like to welcome Harry Gray, KB4ALS, of Brookline into the club. Hope to see you at a meeting soon Harry. Club membership now stands at 95.

# ANNOUNCEMENT

The next Teleconference Radio N[illegible] will be March 8, probably at 8:00 p.[illegible] The topic will be Amateur Radio [illegible] the Law, with ARRL General Counsel Chris Imlay, N3AKD, Jim O'Connell, W9WU and Joe Merdler, N6AHU. You can participate via the 1200 Radio Club Billerica repeater on 147.72/12.

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It was suggested by Gary Weissel, KA1JWE, that we should try having a monthly informal breakfast meeting like some of the other clubs do. This was discussed at a meeting and we decided to give it a try. The first breakfast was to be held on February 26 and the plan is to continue each fourth Sunday of the month. The place is Friendly's on Route 135 in Natick near the Framingham line and the time is 9:00 a.m. All are welcome and the next date will be March 25.

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Don't forget the weekly W.A.R.S. net Sunday nights at 7:00 p.m. on our repeater 147.63/03. See you next week.

# REPEATER

As you may or may not know, our two meter repeater, 147.63/03 has been having some recent problems, mostly related to the transmitter going off the air at unpredictable times, and putting out only a small amount of power (20 watts from a 100+ watt transmitter).

The problem has been determined to be in the 2 meter transmitter, its tube final and associated circuitry. I have, with some help, been making repeated trips to the transmitter site to replace various pieces of the transmitter such as fuses and final amplifiers. It has been determined that we should do something to make the repeater more reliable. Because of this, we are asking that, since there is no item in the budget to replace the transmitter, that you the members make donations to the repeater fund to help fix it.

This is voluntary on your part, but I hope that as many of you can make a donation as possible. Think of repeater clubs, and the high dues they charge to do upkeep on their repeaters ($20+), then think of our dues ($8) and all the society does in terms of contests, message fairs and classes in addition to the repeater and give a few extra bucks to make our repeater a first class machine.

We are presently looking at various alternatives to fix this problem including: repair of the existing transmitter (~ $200), buy a new transmitter (~ $350), buy a whole new repeater including duplexers ($1500+). Any input regarding these options or others would be greatly appreciated either in person, at the meetings, on the repeater, or on the telephone. I can be reached at home after 6:00 p.m. at 899-5924, or on the repeater.

If most everybody or all the repeater users all voluntarily send $10 to $15 or more then we will be on our way to a stable machine. Please make checks out to the Wellesley ARS and mail them to 211 Washington Street, Wellesley, Mass. 02181.

Thanks and 73.

Tom Kinahan, N1CPE

# Hamnews

FCC monitoring stations are still on the lookout for Rules violators. Regardless of the financial cutbacks they have suffered, the Commission continues to routinely monitor the Amateur bands. In the Pacific, monitoring stations are believed to be listening especially closely to the maritime mobile nets, checking for proper use of callsigns and insuring that no violations occur in the handling of traffic. Thanks BIARC Bulletin, KH6WT.

Westlink Report, February 10, 1984

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There were 33,000 persons examined by FCC's Field Operations Bureau in 1983, compared with 41,600 in 1982 and 50,900 in 1981, according to Joyce Davila, Chief, Public Services Division, Field Operations Bureau. It seems likely that the decline represents lower opportunities for testing rather than a loss of interest. Joyce also reported that FCC has figures showing it cost at least $8 to administer each of those examinations, though of course salaries and long-term leasing of examination rooms form an important part of this sum.

ARRL Letter, January 19, 1984

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On January 11, Washington Area Coordinator Perry Williams, W1UED, and his newly appointed assistant Chuck Dorian, W3JPT, met with Willard R. Nichols, chief of staff to FCC Chairman Mark Fowler. A number of topics were covered in the meeting that lasted for nearly an hour, even though it was scheduled for only 15 minutes. The parties reported that there was a substantial exchange of information resulting in a deeper appreciation of each other's points of view.

ARRL Letter, January 19, 1984

# The Spark Gap

WELLESLEY AMATEUR RADIO SOCIETY

324 Washington Street
Wellesley Hills, Massachusetts 02181

FIRST CLASS MAIL